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ABSTRACT

To determine the ability of educable mentally retarded (EMR) students to adjust to the demands of regular vocational education programs, a study was conducted to assess the work adjustment of eighty-five EMR students who were mainstreamed in a three-year vocational-technical program. Students were evaluated by their instructors on a Revised Work Behavior Rating Scale and were categorized according to fourteen content areas, year in program, sex, and sending school district. Significant differences were noted between students in various content areas concerning tolerance for criticism, cooperation with instructor, work motivation, and concentration ability. As a group, EMR students fell within the range of average classroom performance, although some students may have been incorrectly placed in the program. Recommendations resulting from the study included the following: (1) career awareness and exploration should be integrated into the elementary and junior high school EMR curricula; (2) course work should focus on communication and computational skills, occupational information, civic responsibility, personal-social skills, and home and family life skills; (3) EMR vocational competencies need to be strengthened in the areas of independence from supervision, understanding and retaining oral instructions, concentration ability, and quality and quantity of work; (4) decisions regarding school selection and placement should be based on a comprehensive vocational evaluation of the students; and (5) special programming support is required for a successful mainstreamed vocational-technical program. (EIG)

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MAINSTREAMING SPECIAL NEEDS STUDENTS IN VOCATIONAL EDUCATION

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I. INTRODUCTION

The preparation of special needs students for meaningful employment has become an educational concern in recent years. Special needs students include all school age individuals possessing mentally or physically handicapping conditions which hinder their success in regular educational programs.

The mentally retarded constitute the largest group of special needs students currently enrolled in educational programs. As the potential of the mentally retarded to become effective workers has been recognized, training programs have been developed and expanded. Vocational programs were developed throughout the 1950's and 1960's using primarily a segregated format. During the 1970's the concept of providing vocational education for mentally retarded students within regular vocational programs has gained attention as an alternative to previous program models. This approach, commonly referred to as mainstreaming, involves (1) providing educational opportunities in the least restrictive environment, (2) de-emphasizing the use of labels in determining educational needs, (3) creating alternatives to enable regular classroom teachers to serve the handicapped, and (4) uniting the skills of general education and special education so that all individuals can have an equal educational opportunity (Caster, 1975).

The movement throughout the country to implement mainstreaming has created disagreement among authorities regarding the desirability of integrating the mentally retarded into regular classrooms. Although

the feasibility of vocational education for the mentally retarded has been demonstrated, mainstreaming remains questionable to many as the most appropriate delivery system. The ability of the mentally retarded to assume a functional role in regular vocational education programs has been a major area of concern. Central to this issue is their ability to exhibit vocationally related behaviors conducive to successful classroom adjustment. These behaviors, known as work adjustment skills, consist of a broad range of personal, social, and work related behaviors. Such skills include work motivation, mobility, self-concept, maturity, organization, productivity, learning abilities, emotionaly stability, getting along with people, and other social skills, sensory skills, and proper work habits (Krantz, 1971).

A review of the literature supports the position that work adjustment skills are a necessary component of the mentally retarded individual's work personality. Studies consistently reveal the necessity of appropriate work adjustment skills in the successful habilitation of the mentally retarded (Bae, 1968; Chaffin, 1969; Cohen, 1960; Collman & Newlyn, 1956; Dinger, 1961; Fry, 1957; Johnson & Trenchard, 1975; Kelly & Simon, 1969; Michael-Smith, 1950; Neuhaus, 1960; Phelps, 1956; Windle, Stewart, & Brown, 1961).

Personal-social adjustment skills commonly cited as factors affecting success include learning ability, attention span, retention, sociability, self-confidence, maturity, trustworthiness, emotional stability, and personal appearance. Work related behaviors affecting vocational success include acceptance and respect for supervisors, need for supervision, quantity and quality of work, ability to follow oral directions,

work motivation, ability to accept criticism, ability to get along with and be accepted by co-workers, observance of safety rules, job responsibility and reliability, and punctuality and attendance.

The review of the literature clearly points to an interrelationship between vocational training, work adjustment, and employability. Mentally retarded individuals receiving vocational training appear to have higher employment rates than those receiving academically-oriented training (Brolin, Durand, Kromer, & Muller, 1975). Studies also indicate a relationship between the degree of work adjustment exhibited in such programs and subsequent employment success of the mentally retarded (Appell, Williams, & Fishell, 1962; Kolstor, 1961; Warren, 1961). Such findings and conclusions are reflected in expressed recommendations from several authorities calling for the implementation of vocational education progrmas for the mentally retarded which emphasize and monitor the acquisition of appropriate work adjustment skills.

Individuals labeled as educable mentally retarded (EMR) constitute the largest block of special needs students currently being mainstreamed into regular vocational education programs. However, despite the nationwide movement toward vocational mainstreaming for this population, the ability of EMR students to adjust to such programs remains an unresolved controversy. Research has not been conducted concerning the extent to which work adjustment skills are exhibited by EMR students enrolled in regular vocational education programs. As a result, misconceptions remain concerning their ability to demonstrate adjustment behaviors which meet the standards of such programs.

Given the trend toward vocational mainstreaming for EMR students and the importance attached to work adjustment skills, it is necessary that special educators and vocational educators develop a realistic awareness of the ability of EMR students to adjust to the demands of regular vocational education programs. Such knowledge is vital to the development, implementation, and maintenance of vocational mainstreaming programs for this population. As such, the main purpose of the study was to determine the current functioning levels of special needs students enrolled in mainstreamed vocational content areas at the Venango County Area Vocational-Technical School.

II. PROCEDURES

A. Description of the Population

The study focused on the work adjustment of EMR students enrolled at the Venango County Area Vocational-Technical School in Oil City, Pennsylvania. At the time of the study the facility provided vocational-technical education to a total of 1,000 students from seven sending school districts. Eighty-five students, representing 8.5 percent of the student population, were classified as EMR. EMR student I.Q.'s ranged from 65 to 85. EMR students ranged in age from 16 to 20. Such students had been classified according to standards established by the Pennsylvania Department of Education.

Instruction was provided in a total of eighteen vocational content areas. EMR students were mainstreamed into thirteen content areas. Program support for EMR students in these content areas was provided through the cooperative efforts of administrative personnel, content area instructors and instructor aides, and a vocational resource person knowledgeable in both special education and vocational education. The distribution of EMR students enrolled in the mainstreamed content areas is shown in Table 1.

Table 1

Distribution of Mainstreamed EMR Students by Content Area

Content Area	EMR Enrollment
Air Conditioning	1
Appliance Repair	1
Auto Body	5
Auto Trades	7
Building Maintenance	19
Carpentry	1
Cosmotology	1
Data Processing	1
Food Preparation	30
Home Health Assistant	6
Plumbing	2
Warehousing	10
Welding	1
TOTAL	85

Training at the vocational-technical school was three years in duration, with a cooperative education experience comprising a portion of the training for qualified students. Approximately one-third of the total population was enrolled in each year of the program. Student admission quotas, based on individual district size, determined the number of students from each of the seven sending districts. Applicants were

screened by administrative, counseling, and teaching staff in their sending districts. Final enrollment figures were determined on the basis of the number of students possessing appropriate interests and attitudes which made them potentially successful participants in the vocational-technical school program. The distributions of mainstreamed EMR students by year in program, sex, and sending school district are presented in Tables 2, 3, and 4.

Table 2

Distribution of Mainstreamed EMR Students by Year in Program

Year in Program	EMR Enrollment
1	40
2	23
3	22
TOTAL	85

Table 3

Distribution of Mainstreamed EMR Students by Sex

Sex	EMR Enrollment
Male	53
Female	32
TOTAL	85

Table 4

Distribution of Mainstreamed EMR Students by Sending School District

Sending District	EMR Enrollment
Cranberry	8
East Forest	0
Franklin	18
Oil City	18
Titusville	27
Valley Grove	12
West Forest	2
TOTAL	85

B. The Instrument

A modified version of the Work Behavior Rating Scale, developed by Shushan (1972), was used to assess work adjustment. The original scale was developed to assess the work adjustment of mentally retarded clients in workshop settings. In the modified version, the layout, wording, and content of the items were modified to make them more applicable to a vocational-technical school setting.

The modified instrument, called the Revised Work Behavior Rating Scale, assesses fourteen areas of work adjustment (see Appendix A). When used in a vocational-technical school setting, the Revised Work Behavior Rating Scale yielded individual item test-retest reliabilities ranging from .68 to .85. Total score test-retest reliability on the scale was reported at .89. Validity of the various items was established through

ratings by vocational instructors as to each item's importance as a vocationally related behavior (Dietrich, 1978).

C. Instrument

Enrollment information supplied by the school served as the data source for implementation of the study, which was conducted in the following manner:

1. EMR students mainstreamed into the Venango County Area Vocational-Technical School were categorized according to content area, year in program, sex, and sending school district.

2. Orientation and data collection sessions were held with the various vocational instructors responsible for the vocational education of the EMR students in the study. Administration approval was granted to use time generally allotted for weekly group staff meetings for that purpose.

During session number one the instructors were familiarized with the nature of the proposed study. At that time a review of the Revised Work Behavior Rating Scale was conducted. Preview copies of the scale were provided to the instructors and an analysis of the scale was presented, including an explanation of the scoring procedure. Instructors were also familiarized with the types of common rating errors. They were cautioned to avoid such errors and biased responses at the time of the actual scale completions on students.

Subsequent sessions dealt with data collection. Following a review of the points covered in session number one, each instructor completed rating scales on only EMR students enrolled in his/her vocational content area. Each instructor received a packet of rating scales. Each

scale in the packet had on it the name of the student to be rated. Upon completion of the ratings, each instructor returned his/her packet of ratings to the researcher. In cases where vocational instructors were absent from either session, the researcher conducted orientation and/or data collection sessions with such instructors on an individual basis.

3. Following all data collection, student names were removed from each scale and replaced with numerically coded identification information. Student identification numbers and rating information contained on each scale were then transferred to computer cards for data analysis.

III. RESULTS

Total score work adjustment ratings and individual item ratings were classified by content area, year in program, sex, and sending school district. One factor analyses of variance (ANOVA) were used to analyze the data at the .05 level of significance. Mean item ratings scores and categorical rating distributions were also calculated to describe the students' status on the various items.

A. ANOVA by Content Area

A one factor ANOVA for EMR student total rating scores classified by content was conducted. Because of a low incidence of EMR students enrolled in Air Conditioning, Appliance Repair, Carpentry, Cosmotology, Data Processing, Plumbing, and Welding, those content areas were not included in the calculation. The number and mean total rating scores of the seventy-seven students included in the ANOVA by content area are presented in Table 5. The summary of ANOVA by content area is given in Table 6.

Table 5

Number and Mean Total Rating Scores of Students Included in ANOVA by Content Area

Content Area	Student N	Average
Auto Body	5	78.80
Auto Trades	7	75.57
Building Maintenance	19	63.95
Food Preparation	30	78.80
Home Health Assistant	6	71.50
Warehousing	10	71.10
Average		73.27

Table 6

Summary of ANOVA of Total Rating Scores by Content Area

Source	D.F.	M.S.	F-ratio	F-prob.
Between	5	564.92	1.59	0.1733
Within	71	354.69		
Total	76			

The F value of 1.59 for the main effect of mean total rating scores between content areas was not significant. There was a tendency for EMR students in Auto Body and Food Preparation to be rated higher ($\bar{X}$ = 78.80) than students in Building Maintenance ($\bar{X}$ = 63.95), but the difference was not significant.

Analysis of mean rating scores on the individual items revealed no significant differences between students in the various content areas on ten items. Item number 3, Tolerance for Criticism, revealed a significant difference (< .01), although none of the pair-wise differences were significant. On item number 5, Cooperation with Instructor, students in Home Health Assistant were rated significantly higher (< .01) than students in Building Maintenance. Item number 8, Motivation for Work, revealed a significant difference (= .01), although none of the pair-wise differences were significant. On item number 9, Concentration Ability, students in Food Preparation were rated significantly higher (< .01) than students in Building Maintenance.

B. ANOVA by Year in Program

A one factor ANOVA for EMR student total rating scores classified by year in program was conducted. The number and mean total ratings scores of the students are presented in Table 7. The summary of ANOVA by year in program is given in Table 8.

Table 7

Number and Mean Total Rating Scores of Students Included in ANOVA by Year in Program

Year in Program	Student N	Average
1	40	71.20
2	23	71.44
3	22	81.00
Average		74.55

Table 8

Summary of ANOVA of Total Rating Scores by Year in Program

Source	D.F.	M.S.	F-ratio	F-prob.
Between	2	769.77	2.15	0.1228
Within	82	357.71		
Total	84			

The F value of 2.15 for the main effect of mean total rating scores between years in the program was not significant. There was a tendency for third year students to be rated higher ($\overline{X}$ = 81.00) than first and second year students ($\overline{X}$ = 71.20 and 71.44), but the difference was not significant.

Analysis of mean rating scores on the individual items revealed no significant differences between students in various years in the program on any of the items. Third year students were consistently rated higher than first and second year students on all items, but in no instance was the difference significant.

C. ANOVA by Sex

A one factor ANOVA for EMR student total rating scores classified by sex was conducted. The number and mean rating scores of the students are presented in Table 9. The summary of ANOVA by sex is given in Table 10.

Table 9

Number and Mean Total Rating Scores of Students Included in ANOVA by Sex

Sex	Student N	Average
Male	53	71.51
Female	32	77.59
Average		73.80

Table 10

Summary of ANOVA of Total Rating Scores by Sex

Source	D.F.	M.S.	F-ratio	F-prob.
Between	1	738.63	2.04	0.1575
Within	83	363.05		
Total	84			

The F value of 2.04 for the main effect of mean total rating scores between sexes was not significant. There was a tendency for males to be rated higher ($\overline{X}$ = 77.59) than females ($\overline{X}$ = 71.51), but the difference was not significant.

D. ANOVA by Sending School District

A one factor ANOVA for EMR student total rating scores classified by sending school district was conducted. Because of a low incidence of EMR students from the districts of East and West Forest those districts were not included in the claculation. The number and mean rating scores

of the eighty-three students in the ANOVA by sending school district are presented in Table 11. The summary of ANOVA by sending school district is given in Table 12.

Table 11

Number and Mean Total Rating Scores of Students Included in ANOVA by Sending School District

Sending District	Student N	Average
Cranberry	3	69.50
Franklin	18	70.28
Oil City	18	67.67
Titusville	27	82.67
Valley Grove	12	74.08
Average		72.84

Table 12

Summary of ANOVA of Total Rating Scores by Sending School District

Source	D.F.	M.S.	F-ratio	F-prob.
Between	4	789.39	2.30	0.0658
Within	78	342.78		
Total	82			

The F value of 2.30 for the main effect of mean total rating scores between sending districts was not significant. There was a ten-

dency for students from Titusville to be rated higher ($\overline{X}$ = 82.67) than students from Cranberry ($\overline{X}$ = 69.50), but the difference was not significant.

Analysis of the mean rating scores on the individual items revealed no significant differences between students from the various sending districts on any of the items.

E. Mean Item Rating Scores

Mean EMR student rating scores were calculated for each item. The mean item ratings are presented in Table 13.

Table 13

Mean Item Rating Scores

Item	Mean Rating
Co-Worker Relations	5.61
Disruptiveness	5.97
Tolerance for Criticism	5.79
Independence from Supervision	4.19
Cooperation with Instructor	6.35
Understanding Oral Instructions	4.28
Memory for Instructions	4.32
Motivation for Work	5.26
Concentration Ability	4.86
Attendance	6.28
Quality of Work	4.85
Quantity of Work	4.34
Safety Awareness and Habits	5.78
Personal Appearance	5.93

Analysis of mean item ratings indicated EMR students to be performing within the broad category of average classroom performance on all items. Performance in the lower range of average classroom performance (4.0-4.9) was indicated in the areas of Independence from Supervision, Understanding Oral Instructions, Memory for Instructions, Concentration Ability, Quality of Work, and Quantity of Work. Performance in the middle range of average classroom performance (5.0-5.9) was found in the areas of Co-Worker Relations, Disruptiveness, Tolerance for Criticism, Motivation for Work, Safety Awareness and Habits, and Personal Appearance. Performance in the upper range of average classroom performance (6.0-6.9) was noted in the areas of Cooperation with Instructor and Attendance.

F. Categorical Distribution of Item Ratings

A categorical distribution of EMR student ratings on each item was calculated. The number and percentage of students receiving the various categorical ratings on each item are shown in Table 14.

Analysis of the categorical distribution of ratings on each item revealed diverse functioning among the EMR students. The percentage of students receiving unacceptable/below average classroom performance ratings (ratings of 1, 2, 3) on the various items ranged from 9.4 percent to 40 percent. The percentage of students receiving average classroom performance ratings (ratings of 4, 5, 6) ranged from 17.6 percent to 61.2 percent on the various items. Above average/superior classroom performance ratings (ratings of 7, 8, 9) ranged from 11.8 percent to 61.2 percent on the various items. Averaging across the fourteen items, 21.5 percent of the students received unacceptable/below average classroom performance ratings; 46.7 percent received averaged

Table 14

Categorical Distribution of EMR Student Ratings on Individual Items

Item	Unacceptable/Below Average (Ratings of 1, 2, 3)		Average (Ratings of 4, 5, 6)		Above Average/Superior (Ratings of 7, 8, 9)	
	N	%	N	%	N	%
Co-Worker Relations	8	9.4	47	55.3	30	35.3
Disruptiveness	14	16.5	32	37.6	39	45.9
Tolerance for Criticism	9	10.6	44	51.8	32	37.6
Independence from Supervision	31	36.4	44	51.8	10	11.8
Cooperation with Instructor	8	9.4	28	32.9	49	57.7
Understanding Oral Instructions	34	40.0	40	47.1	11	12.9
Memory for Instructions	26	30.6	52	61.2	7	8.2
Motivation for Work	22	25.9	31	36.4	32	37.6
Concentration Ability	23	27.1	45	52.9	17	20.0
Attendance	18	21.2	15	17.6	52	61.2
Quality of Work	15	17.6	52	61.2	18	21.2
Quantity of Work	30	35.3	43	50.6	12	14.1
Safety Awareness and Habits	9	10.6	43	50.6	33	38.8
Personal Appearance	8	9.4	40	47.1	37	43.5

classroom performance ratings; and 31.8 percent received above average/ superior classroom performance ratings.

E. Descriptive Information

Descriptive information, regarding programming practices in the sending school districts and at the vocational-technical school, was gathered during the course of the study.

All ninth grade EMR students interested in attending the vocational-technical school received a one-hour sound-on-slide show, presented by vocational-technical school staff, describing training opportunities at the school. In some school districts, the slide show was repeated by special education faculty for further instruction and guidance of interested students. In addition, group tours of the vocational-technical school facility were available to students from each school district. Interested EMR students from Oil City spent one or two additional days at the vocational-technical school in the content area of their choice. Similar exposure for EMR students was not reported in the other school districts.

Counseling and guidance for EMR students regarding content area selection and programmatic expectancies at the vocational-technical school was provided entirely by counselors and special education faculty from each sending school district. Selection of EMR students for the vocational-technical school was based on counselor and special education faculty recommendations in all but two districts. Oil City automatically mainstreamed all EMR students into the vocational-technical school program. EMR students at Cranberry were randomly chosen along with non-retarded applicants. The particular EMR student and the total number of

EMR students attending the vocational-technical school was determined by the "luck of the draw."

Only Titusville reported the availability of a work-study program for EMR students not selected for the vocational-technical school. The remaining school districts provided classroom instruction for EMR students in the areas of Industrial Arts and Home Economics, but offered no type of work experience program.

Available enrollment figures indicated that approximately eighty percent of all eligible (10th, 11th, and 12th grade) EMR students from the seven school districts were attending the mainstreamed vocational-technical school program. At the time of the study, a resource person was available to support EMR students and instructors in the various content areas and coordinate instructional efforts between the vocational-technical school and sending school district special education programs. However, such services were noted as being delivered on a "on again-off again" basis, contingent on the availability of funding for such a staff member.

IV. DISCUSSION

A. Summary

The recent trend toward vocational mainstreaming for EMR students is a reflection of the current emphasis on providing mentally retarded individuals with appropriate vocational learning experiences in the least restrictive environment. The vocational mainstreaming movement has created disagreement among professionals regarding the ability of the mentally retarded to exhibit work adjustment skills which meet acceptable standards. Despite the controversy, research has not been conducted to determine the degree of work adjustment demonstrated by EMR students enrolled in regular vocational education programs. Given the above disagreement and lack of research on the subject, the purpose of the study was to determine the current functioning levels of special needs students enrolled in mainstreamed vocational content areas at the Venango County Area Vocational-Technical School.

The study sample consisted of eighty-five EMR students mainstreamed into the Venango County Area Vocational-Technical School. Students were categorized according to content area, year in program, sex, and sending school district. Using the Revised Work Behavior Rating Scale, vocational instructors rated the students in fourteen areas of work adjustment.

Analyses of variance of EMR student total score ratings revealed no significant differences between students when classified by content area, year in program, sex, and sending school district. Significant differences were found between students in various content areas on items

concerning Tolerance for Criticism, Cooperation with Instructor, Motivation for Work, and Concentration Ability.

Although not statistically significant, the following tendencies were observed regarding total score student ratings:

1. Students in Auto Body and Food Preparation tended to receive higher total ratings than students in Building Maintenance.

2. Students in the third year of the program tended to receive higher total ratings than first and second year students.

3. Males tended to receive higher total ratings than females.

4. Students from Titusville tended to receive higher total ratings than students from Cranberry.

Mean item ratings indicated EMR students, as a group, to be performing within the broad range of average classroom performance on each item. Averaging across all fourteen items, 21.5 percent of the EMR students were rated in the unacceptable/below average range of classroom performance, 46.7 percent in the average range, and 31.8 percent in the above average/superior range.

It may logically be assumed that the performance of EMR students was a reflection of their cognitive abilities. However, descriptive information gathered revealed that other factors may have contributed to the work adjustment status of EMR students enrolled at the vocational-technical school. Minimal vocational-technical school orientation practices, inconsistent selection procedures, and the lack of vocational training alternatives suggests the possibility that some EMR students may have been inappropriately placed in the vocational-technical school program. A final factor affecting the performance of the EMR students may

have been the inconsistent availability of a vocational resource person to support their programming at the vocational-technical school.

B. Curricular Recommendations

The concept of career education should provide the base for the development of academic, personal-social, and work related competencies in EMR students. Hoyt (1972) defined career education as:

> The total effort of public education and the community aimed at helping all individuals to become familiar with the work values of a work oriented society, to integrate these values into their personal value system, and to implement these values into their personal lives in such a way that work becomes possible, meaningful, and satisfying to each individual. (p. 2)

Career awareness and exploration should be an integral part of the elementary and junior high school curricula of EMR students, providing a solid foundation for future skill training. Academics should increasingly focus on communication skills, computational and quantitative skills, occupational information and civic responsibility, personal-social skills, and home and family living skills related to occupational functioning (Young, 1969). Career exploration experiences, in addition to acquainting EMR students with career opportunities, should emphasize the development of proper work attitudes and habits. Programming should afford EMR students with opportunities to explore the world of work through simulated and hands-on experiences involving materials, tools, processes, and personal relationships consistent with career opportunities (Phelps, 1977).

The study indicated a need to strengthen EMR vocational competencies in the areas of independence from supervision, understanding oral instructions, memory for instructions, concentration ability, quality of work, and quantity of work. Pre-vocational classroom exercises designed

to improve listening and comprehension skills should be provided to strengthen students' abilities to understand, remember, and follow through on instructions. Similar exercises implemented in shop and home economics classes can be used to transfer such skills to a vocational environment. Quality and quantity standards established for classroom academic work should be used to draw attention to the fact that similar production standards will be expected in the work world. In-class work and job samples, in addition to supervised work in shop and home economics classes, can be used to relate such skills to a vocational setting. In-school experiences such as cafeteria, janitorial, and teacher aides, if carefully supervised, can provide a further opportunity for EMR students to develop appropriate work adjustment skills.

Occupationally oriented learning materials, role-playing situations, audio-visual presentations, field trips to community job sites, extended visitations to the vocational-technical school which allow for direct exposure to various vocational content areas, speakers from business, industry, and the vocational-technical school, and specialized pre-vocational programming should be used to reinforce and augment pre-vocational classroom instruction. An example of an effective specialized pre-vocational program is the Berks County Vocational Services Program in Berks County, Pennsylvania. The program, operated cooperatively by the Berks County Area Vocational-Technical School and the local intermediate unit, provides pre-vocational experiences to handicapped students through the use of a specially equipped mobile trailer. The unit periodically visits each school district in the area. Students are given an opportunity to evaluate their vocational interests and aptitudes through audio-visual

presentations and job samples, and gain experience in activities such as filling out job applications and being interviewed for a job.

Since eventual enrollment at the Venango County Area Vocational-Technical School is a strong possibility for EMR students, vocational-technical school personnel involvement in EMR programming during the junior high school years is suggested. Cooperation between vocational-technical school personnel and special education faculty in the sending school districts can enhance the possibility of providing a pre-vocational training milieu conducive to the development of appropriate work adjustment behaviors and attitudes.

Appropriate vocational-technical school selection practices and vocational placement alternatives for EMR students in the Venango County Area Vocational-Technical School attendance area should be developed. Decisions regarding vocational-technical school selection and alternative vocational placements should be based on the results of a comprehensive vocational evaluation of the students. Such evaluation should assess all aspects of a student's functioning in determining his/her vocational potential and training and placement needs. An evaluation system suggested by Brolin (1976) can serve as a model for the development of a comprehensive vocational evaluation system. Brolin stated that vocational evaluation should consist of the following four overlapping components:

1. Clinical Assessment: involves (a) medical evaluation of general health and physical capacity for work; (b) social evaluation of familial and interpersonal relationships, social skills, and use of leisure time; (c) educational evaluation of academic abilities; (d) psychological evaluation of intelligence, personality, and perceptual-motor skills.

2. Work Evaluation: involves (a) counseling interviews to evaluate attitude, interests, and goals; (b) vocational interest and aptitude testing; (c) work and job samples; (d) situational assessment.

3. Work Adjustment: actually permeates all aspects of vocational evaluation, and is concerned with changing inappropriate behaviors related to vocational functioning.

4. Job Try-outs: evaluation of vocational capabilities in real work situation.

Results of effective vocational evaluation can serve as an indication of the EMR students' potential for successful mainstreamed vocational-technical school placement. Input from special education faculty, school counselors, parents, and vocational-technical school personnel should be used to supplement the evaluation findings in arriving at final placement decisions. Sarandoulias (1975) reported the successful use of a child study team, consisting of educational, medical, and psychological staff in evaluating and placing handicapped students in a comprehensive high school vocational program in Camden County, New Jersey.

It must be recognized that mainstreamed vocational-technical school enrollment is a feasible vocational program for some EMR students, but not necessarily the training alternative for all EMR students. Unpublished reports estimate that approximately thirty percent of secondary school age special needs students can profit from a mainstreamed vocational program. Although the accuracy of such reports has not been confirmed, a study by Haring and Krug (1974) did find that return to regular class placements from special education classes was feasible for fifty-four percent of EMR students attending special classes in an urban area if proper preparation for the move was provided. Such reports and findings

indicate the need for availability of vocational alternatives to the mainstreamed vocational-technical program in Venango County. Such alternatives might include community based work study programs, as described by Freeland (1969), administered through the various sending school districts. Other alternatives might include individualized programs combining work study experiences with specialized short-term skill training provided at the vocational-technical school.

The transition from special class placement to a mainstreamed vocational-technical school program is a difficult process for EMR students. Such a transition cannot be effected successfully without necessary programming support. Tindall (1975), in discussing vocational mainstreaming, stated that "To merely place handicapped students in regular classes without increased input of services and personnel invites failure (p. 48)." Frantz (1976) and McKinney (1976) affirmed the need for curriculum specialists to support the programming of special needs students enrolled in mainstreamed vocational programs. Hanson (1975) reported the use of vocational support personnel in Project Liaison in Pittsburgh, Pennsylvania. Serving as vocational counselors in the city's twelve comprehensive high schools, support personnel provide mentally retarded students enrolled in mainstreamed vocational content areas with assistance in content area selection, development of marketable skills, and job acquisition upon graduation. There is a need for the ongoing services of a vocational resource person, knowledgeable in special education and vocational education, to support EMR students enrolled at the Venango County Area Vocational-Technical School. The resource person can serve a pivotal role in the overall pre-vocational and vocational

preparation of EMR students from the various sending districts. Primary duties of the resource person would include assisting vocational instructors and EMR students at the vocational -technical school and coordinating the instructional efforts of the vocational-technical school and sending school district special education programs. Such efforts can be effective in developing and maintaining appropriate work adjustment skills in EMR students which meet acceptable vocational-technical school standards. Additional duties of the resource person would include assisting special education faculty in developing effective pre-vocational experiences, vocational guidance and counseling of EMR students interested in attending the vocational-technical school, consulting with special education faculty and school counselors regarding appropriate vocational placements, and providing expertise in the development of alternative vocational programs for EMR students.

APPENDIX A

The Revised Work Behavior Rating Scale

Instructions for Completing the Revised Work Behavior Rating Scale

1. Read each item carefully. Be sure you have a clear picture of what behavior you are to judge. Please rate all items. Ratings are to be made on the basis of a student's usual performance over an extended period of time, rather than on a single occasion or over a very brief period of time.

2. Place a circle around the number on the rating line which best describes the student's behavior. Circle only one number for a given item. Two guides will help you. First, read the behavior for ratings of 1, 5, and 9 beneath the rating line. Second, refer to the categorical descriptions above the rating line. Meaning of these categories are defined below:

   Excellent: superior classroom performance (rating of 9)

   Good: above average classroom performance (rating of 7 or 8)

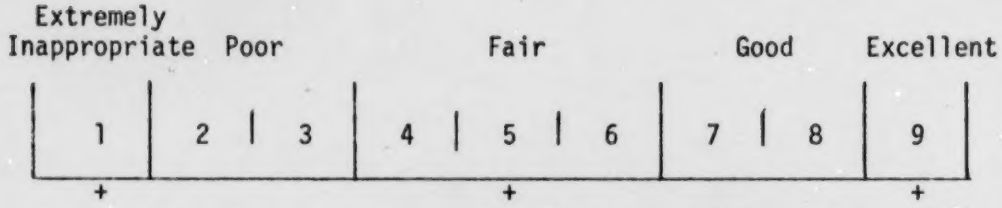
   Fair: average classroom performance (rating of 4, 5, or 6)

   Poor: below average classroom performance (rating of 2 or 3)

   Extremely Inappropriate: unacceptable classroom performance (rating of 1)

3. Whenever possible, give an example under "Comments" of student's behavior which would show why you rated him/her as you did.

1. CO-WORKER RELATIONS How well does student get along with fellow students?



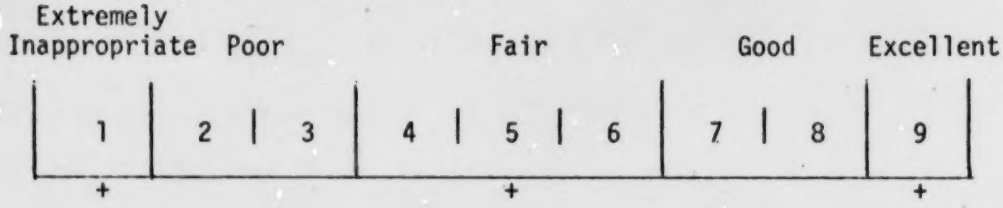
Gets along very poorly; unsmiling argumentative, and hostile much of the time.

Gets along fairly well; generally pleasant and congenial; seldom creates friction with fellow students.

Gets along extremely well; always pleasant and congenial; never creates friction with fellow students.

Comments:

2. DISRUPTIVENESS To what extent does student mind own business and not bother or distract other students while they work?



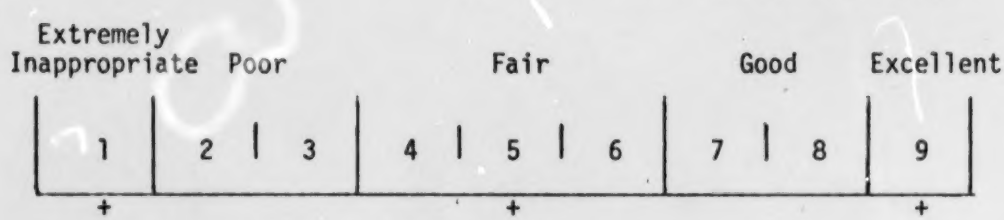
Frequently disrupts the work of others.

Occasionally disrupts the work of others.

Rarely disrupts the work of others.

Comments:

3. TOLERANCE FOR CRITICISM How well does student take instructor suggestions and comments meant to correct inadequate work performance or inadequate behavior?



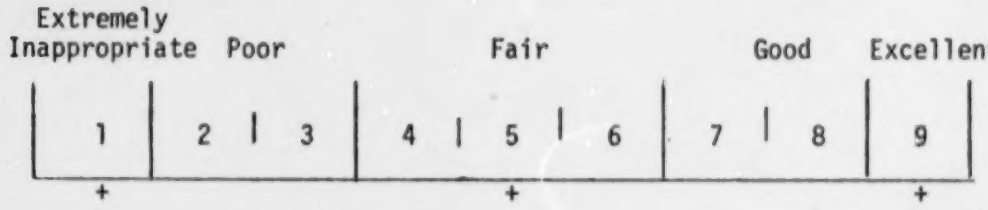
Falls apart when criticized; cannot take any negative comments.

Occasionally disturbed by criticism, but generally responds positively.

Rarely disturbed by criticism; nearly always responds positively.

Comments:

4. INDEPENDENCE FROM SUPERVISION To what extent can student carry out tasks with minimal need to be supervised by instructor?



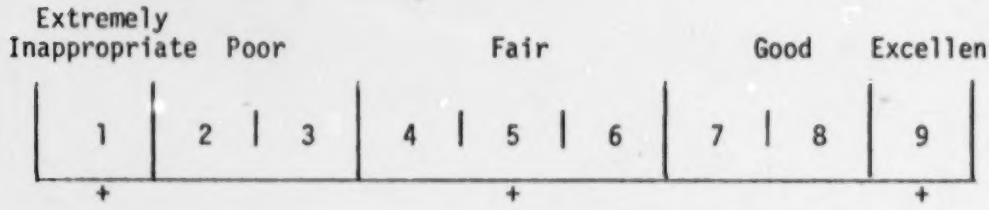
Needs almost constant supervision on any task.

Occasionally needs supervision on some tasks, but generally works independently.

Rarely needs supervision on any task; works through on own.

Comments:

5. COOPERATION WITH INSTRUCTOR How well does student cooperate with instructors?



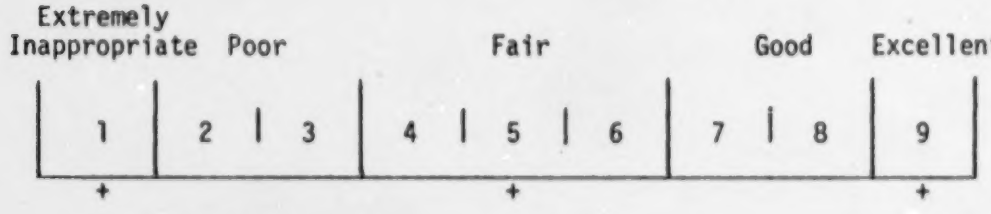
Unresponsive to instructor's requests or instructions; rarely cooperates satisfactorily.

Occasionally balks at instructor's requests or instructions, but generally quite willing and cooperative.

Responds readily to all instructor's requests or instructions.

Comments:

6. UNDERSTANDING ORAL INSTRUCTIONS How well is student able to follow oral instructions?



Cannot follow oral instructions even when they involve one task; needs a demonstration before understands what to do.

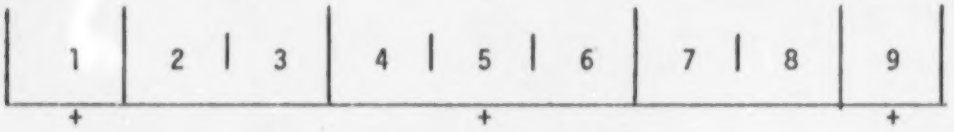
Can follow oral instructions involving at least three tasks within same job.

Can follow oral instructions involving five or more tasks within same job.

Comments:

7. MEMORY FOR INSTRUCTIONS After student has been taught a new task, how well does he/she remember instructions?

Extremely Inappropriate | Poor | Fair | Good | Excellent



Forgets instructions quickly; remembers instructions during one work period, but needs almost complete re-instruction next day.

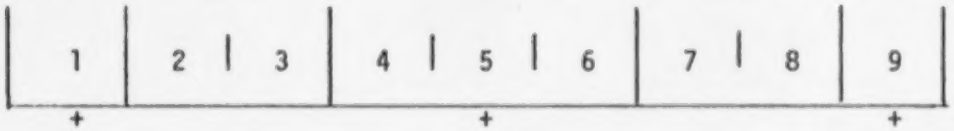
Generally remembers instructions from day to day, but occasionally needs partial re-instruction.

Remembers instructions completely; rarely needs re-instruction.

Comments:

8. MOTIVATION FOR WORK To what extent does student appear to prefer working to playing or "loafing"?

Extremely Inappropriate | Poor | Fair | Good | Excellent



Little interest in any jobs assigned; plays or loafs a lot.

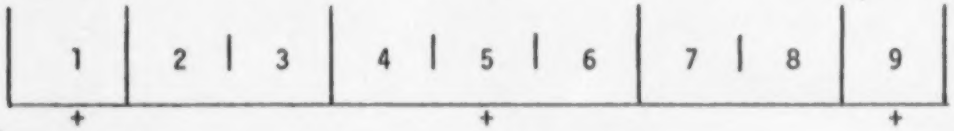
Likes some jobs much more than others; occasionally plays or loafs on less liked jobs.

Works enthusiastically on most jobs; seldom plays or loafs.

Comments:

9. CONCENTRATION ABILITY How well does student keep attention focused on job task at hand?

Extremely Inappropriate | Poor | Fair | Good | Excellent



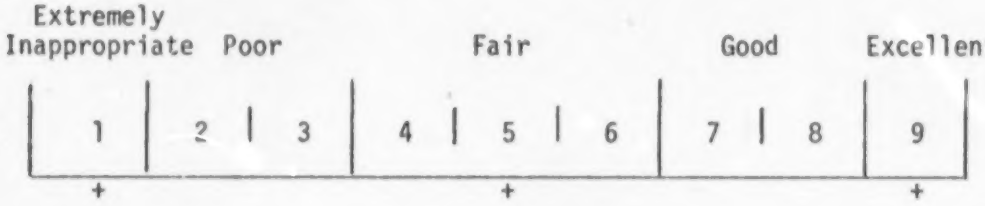
Often distracted by movement and surrounding noises in work area.

Occasionally distracted by movement and surrounding noises in work area, but generally keeps attention on job task.

Rarely distracted by movement and surrounding noises in work area.

Comments:

10. ATTENDANCE How often is student absent from class?



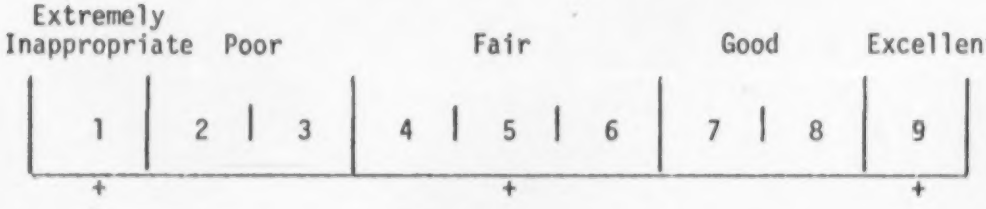
Frequently absent; averages four or more days per month.

Occasionally absent averages no more than two days per month.

Rarely absent; averages less than one day per month.

Comments:

11. QUALITY OF WORK How often must student's work be rejected because it does not meet acceptable standards?



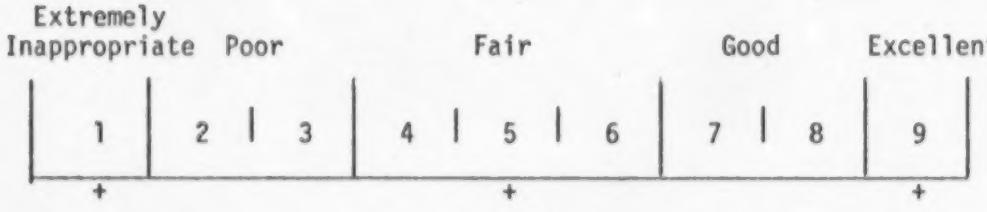
Hardly ever puts out acceptable work.

Has rejects ocassionally, but generally puts out acceptable work.

Rather consistently puts out work of high quality.

Comments:

12. QUANTITY OF WORK How much does student produce compared to the average student?



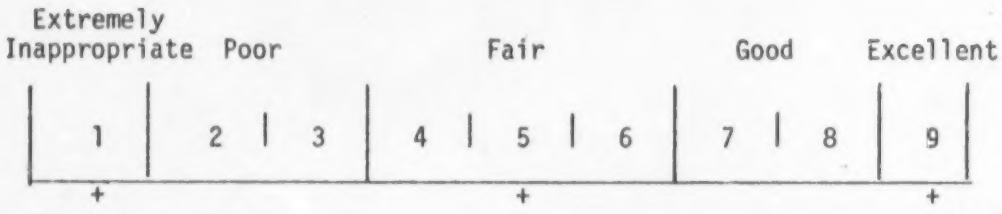
Generally produces less than ½ of average student.

Generally produces amount equal to average student.

Consistently produces more than average student.

Comments:

13. SAFETY AWARENESS AND HABITS To what extent does student observe safety regulations?



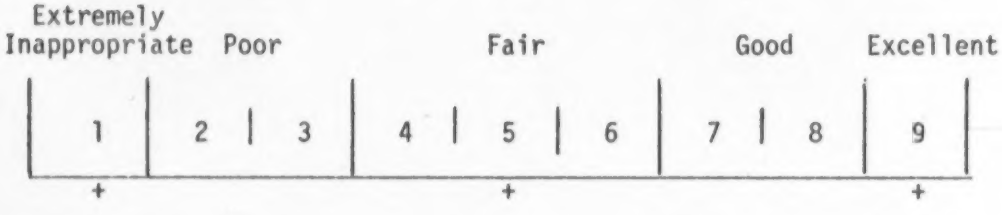
Very lax in observance of safety regulations; constantly needs to be reminded.

Generally observes safety regulations; occasionally needs to be reminded.

Observes safety regulations without need to be reminded.

Comments:

14. PERSONAL APPEARANCE To what extent does student exhibit grooming and dress behaviors appropriate to his/her vocational content area?



Very lax in exhibiting appropriate grooming and dress; constantly needs to be reminded.

Generally exhibits appropriate grooming and dress; occasionally needs to be reminded.

Exhibits appropriate grooming and dress without need to be reminded.

Comments:

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